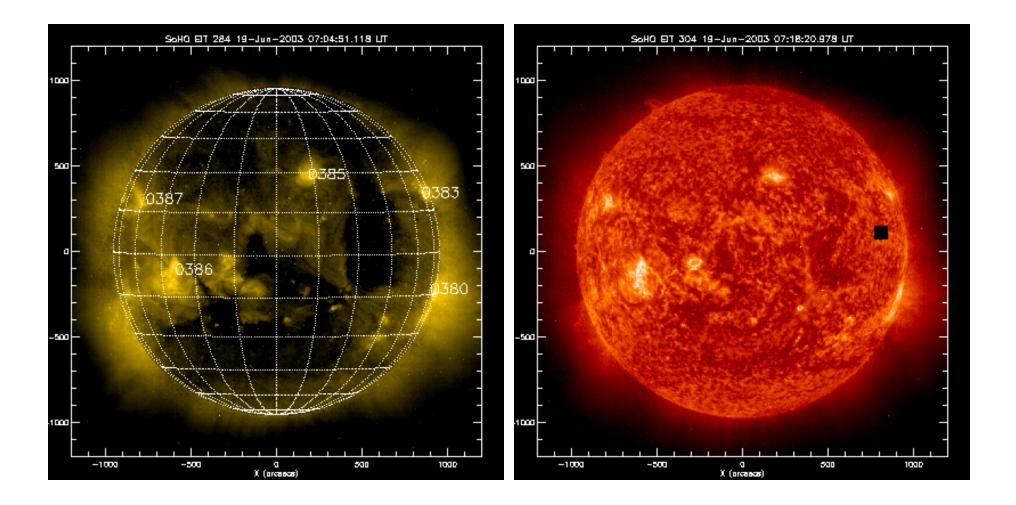
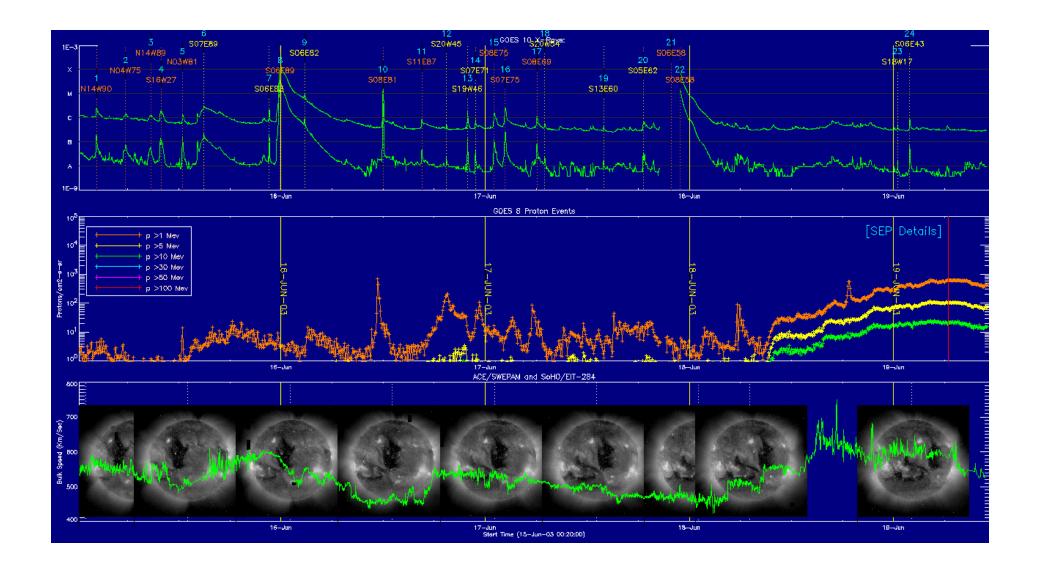
LWS MOWG

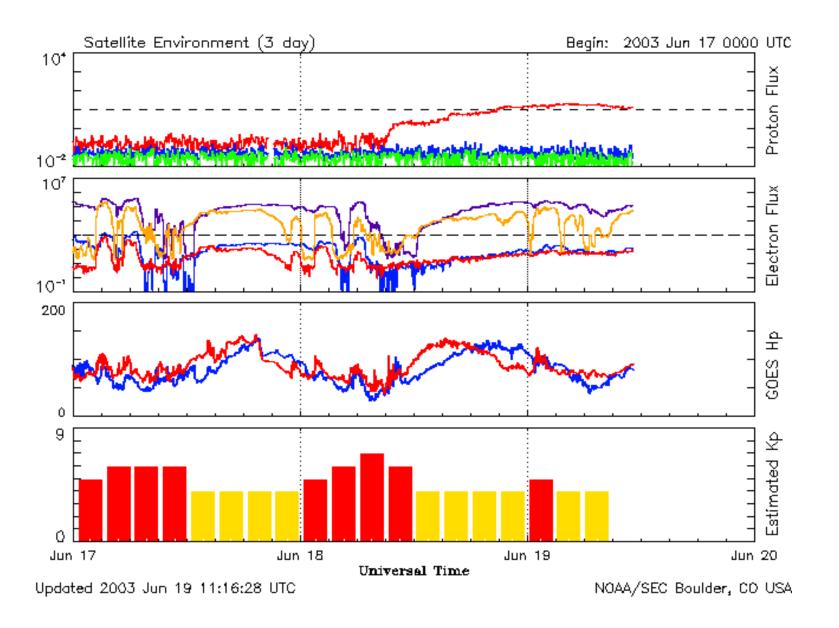
19-June-03

Agenda -

- Morning status
 - State of the system
 - State of the Theme (organization)
 - State of the Agency (status)
 - State of LWS (organization)
- Background Models
 - Model for action
 - Model for motivation
 - The Human paradigm
 - Pasteur's Quadrant
- Goals
 - Locke' principle
 - Government and Science









- •Goal 1: Understand the Earth system and apply Earth system science to improve production of climate, weather and natural hazards
- •Goal 5: Explore the solar system and the universe beyond, understand the origin and evolution of life, and search for evidence of life elsewhere.
- " The Sun-Earth Connection theme investigates the structure and behavior of our Sun . . . and how it affects the planets and the space between them . . ."



SEC Division Scientific Objectives

SEC Strategic Goal: Understand how the Sun, heliosphere, and the planets are connected in a single system.

- Explore the fundamental physical processes of plasma systems in the universe
- **Understand** the changing flow of energy & matter throughout the sun, heliosphere, and planetary environments
- Define the origins and societal impacts of variability in the Sun-Earth Connection



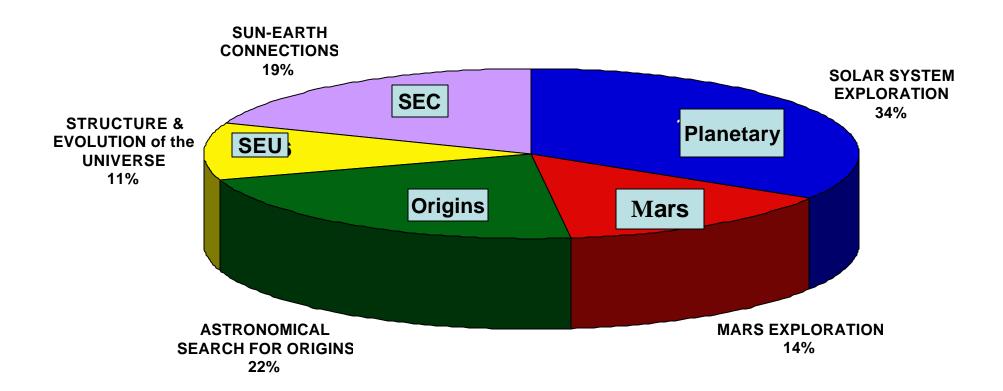




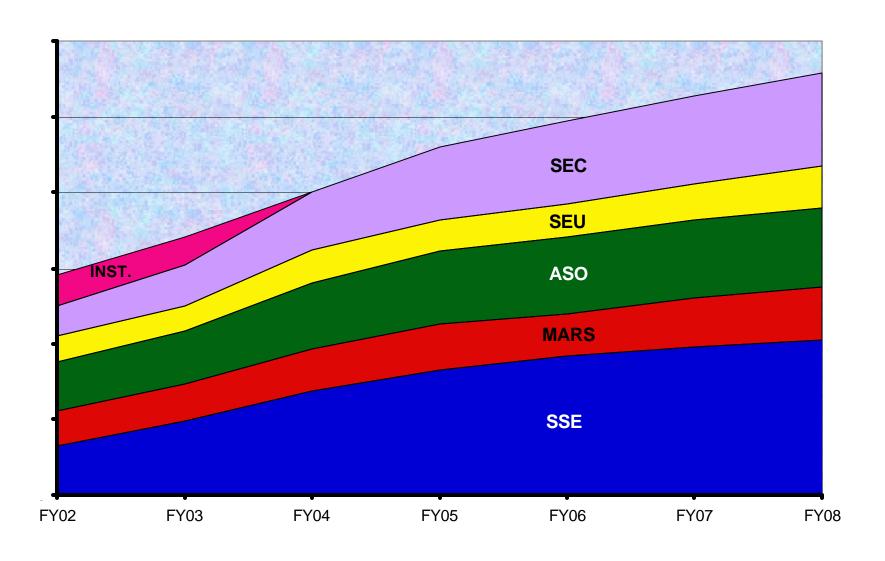
SEC Operating Missions

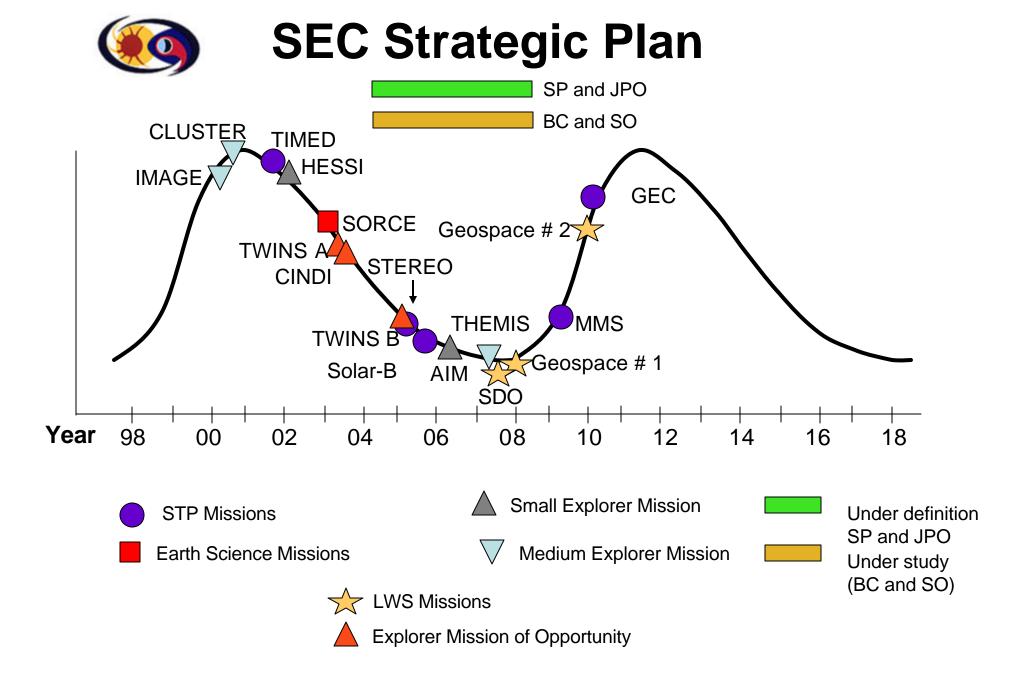
- Solar and Heliospheric Physics
 - Distant Heliospheric missions
 - VOYAGER, ULYSSES
 - L1 in situ sensing missions
 - ACE, SOHO (solar wind instruments), and WIND (2003)
 - Solar remote sensing missions
 - SOHO, TRACE, and RHESSI
- Geospace Physics
 - Magnetospheric/Ionospheric missions
 - CLUSTER, FAST, GEOTAIL, IMAGE, POLAR, and SAMPEX
 - Earth's Mesosphere
 - TIMED

Full-Cost FY04 President's Budget



FY04 Full-Cost President's Budget (FY02 & FY03 are BAU)





- Issues and Concerns
 - -Trends (\$, Launcher's, content vs cost,
 - -requirements creep, management style, risk issues)
 - -SAT Report
 - -TRTDT
 - -CCMC
 - -Sun-Climate WG
 - -SWx
 - –Space Weather Network
 - -SET
- Forward motion
 - -Program plan
 - –Recognition of opportunity
 - -Communication
 - –Advocacy
 - -Balance

Studying the Solar-Terrestrial Particle Chain 1994 vs. 2004





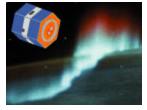














Solar Source

Situation—

1994:

No continuous solar images

2004:

Continuous views of sun in UV, x-rays, visible wavelengths (SOHO, NOAA/SXI, RHESSI, etc.) Solar Wind Drivers

Lack of continuous solar wind measurements

Continuous data from ACE

Seed Population

Limited measure of outer magnetospheric particle populations

Excellent data on plasma sheet sources of seed population (CLUSTER, GEOTAIL, POLAR, etc.) Precipitation And Loss

Some available data on precipitation (SAMPEX, UARS)

SAMPEX configuration, NOAA/POES, POLAR/PIXIE Atmospheric & Ionospheric Coupling

Little knowledge of atmospheric impacts (only UARS/HALOE)

improved situation with SNOE and TIMED

Anticipated

- Committee has some information
- Committee has sense of direction/purpose
- HQ has a technical/scientific consultant that is community based
- Next Meeting
- Findings if appropriate

 Are we too narrow? - Code Y or Code U desirable/necessary participation at some point?